

QUANTA

1984 to 2009

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QLS
is



SILVER JUBILEE YEAR

Volume 26. Issue 3

June/July 2009

Information on the Association

Membership of QUANTA, the independent QL user group, is by annual subscription. The Membership Secretary can supply full details. Copies of the association's constitution & annual accounts are available from the Secretary. There is an extensive software library. There are active national subgroups. Details are given in the Member's Guide and in this magazine.

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5TH AUGUST 2009

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Due to the late publication date of the April/May Issue of QUANTA Magazine, this issue is intentionally published close on its heels - to get back onto our publication schedule. Any lack of reporting on activity by QUANTA and its committee should be seen in this light and not be considered that we are doing nothing. Indeed, details elsewhere in this issue will show that a strong push is being made to improve the new QUANTA Web Site and lengthy discussions are under way to determine the best way forward with this project with the hope of bringing this matter to an acceptable and timely conclusion. I am certain that if any of you have any views on features which you would like to see included on the new Web Site, then Dan and/or Keith would be pleased to hear from you. As usual, contact details are inside the front cover of this issue.

Plans are already in hand for the 2010 AGM and Workshop and committee would be pleased to hear your views on this topic too.

As previously promised, Dilwyn has included questions asked at the "QL is 25" meeting in Allesley, in his Helpline feature, and has continued to dig out the latest news from the QL scene to keep you all informed of what is going on around the world.

If we are to continue with the new Points of View feature, we will need to hear from you with your views on the QL and all matters relating to it. The ql-users list has been very active lately on a number of topics but rather than copy views already published it would be nice to have some original copy for the magazine.

Finally, after being squeezed out of our last issue, I am pleased to include a programme by Steve Poole in which he shows us how to develop a Screen Saver programme in his usual style which encourages the user to tinker with it and add features to suit their own taste and requirements.

Until August, enjoy your summer and happy QLing. You could even send me some notes on how you spent your spare time on the QL during those long summer evenings.

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QUANTA COMMITTEE PRÉCIS **Alison Southern**

Although the QUANTA committee has not been idle, they have not met formally since the last magazine. However, there has been an e-mail meeting to discuss the progress of the web site and a proposal concerning a software library. A date has been set for the next committee meeting. We shall be meeting at 181 Urmston Lane, Manchester at 2 pm on Saturday July 11th . The main items on the agenda will be the web site, a report back on the “QL is 25” Allesley event and plans for the 2010 AGM.

It is hoped to make a fuller report in the next issue of QUANTA Magazine.

CHAIRMAN’S NOTES **Sarah Gilpin**

Firstly I should like to thank all those members who sent in contributions for the Silver Jubilee magazine. Anyone who would still like to send their reminiscences or anecdotes on 25 years of QLing should forward them to John Gilpin, editor@quanta.org.uk. Secondly thanks must be given to John Gilpin for providing us with bumper issues to date this year. Contributions are required if he is to maintain this through the year.

Many discussions have been held and comments made on the New QUANTA Web Site - www.quanta.org.uk - and the way forward. Committee are meeting on July 11th to try and make some decisions on the CMS system preferred. We are aware that we must push forward with improving the Web Site and enabling Subgroups to add their own views and news.

Once we have decided on the most user friendly CMS system we shall endeavour to get it up and running quickly and smoothly. That does not mean it will be completed in the next few weeks, but hopefully in the next few months. At that point we intend there to be news and a library page under Dilwyn, we hope to make the early 1984 issues of the QUANTA Newsletter (Magazine) available as well.

We have had no feedback yet regarding an autumn workshop although that is still a possibility. A venue and date for the next Annual General Meeting is to be decided at the meeting on July 11th and will be advertised in the next magazine.

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New Sudoku Program

Frank Dibowski has sent me a rather neat little pointer driven Sudoku program.

Using this, you can design your own Sudoku puzzles, or load/save puzzles from/to disk, or even get the computer to design you a puzzle, which can be easy, medium, or hard.

It can even solve the puzzle for you if, like me, you find Sudoku puzzles a bit difficult. Just tell it that you 'give up' and it will show you the completed puzzle.

Three sample puzzle files are supplied along with short instructions (in English).

Note that you will get different results from the '[GAME]' icon depending on whether you Hit (left click) or Do on it, so read the short instruction file with it to make sure you know how to get all the available options.

Sudoku is a 24 KB download from

<http://www.dilwyn.me.uk/games/index.html>



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Quantum Soft Games

Following on from the Chord-It program announced in the last issue, Phillip Sproston has sent me a set of QL games formerly published by Quantum Soft in the mid-1980s.

The package includes Mastermind (a code breaker game), Hangman, Star (a Star Trek type game), Advent (an adventure game), and Wordblok (a word game).

At the moment, one or two of these programs need a little bit of work to run on SMSQ/E systems, although most should run on a QL system with Sinclair ROMs.

Phillip Sproston uses one of the QLayer-based emulators these days, so these programs should run on those emulators as well.



The Hangman game

QUANTA Magazine



The Mastermind game

Closure After 15 Years

After 15 years, Simon Goodwin has kindly sent me the “missing last instalment of the file browser article” from the last issue of QL World magazine from 1994.

It's the 'lost' final part of the QL World browser program, with file copy, move and delete operations implemented as promised in the last issue of the magazine, printed in April 1994. The accompanying article was either never written or only in draft - it's not on Simon's original discs, though there was a paragraph about toolkit dependencies which are noted anyway in the listing.

All this came about as a result of an enquiry from a QL World reader who wanted to get the file browser listing to work, but had realised there was a part missing.

Simon Goodwin asked if I could host this missing part online for people who followed the original article, which I am pleased to do.

Simon said in his email:

"I'm copying this to Dilwyn Jones in case he'd like to host the file online for others... after 15 years it's hardly 'news', some readers may be glad of the closure, if nothing else!"

The file is a 11 KB zipped download from the following page on my web site:

<http://www.dilwyn.me.uk/docs/articles/index.html>

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In Stitches

Perhaps the most unusual program added to my web site recently has been an updated version of a knitwear patterns program. Leaving aside jokes like “leaving me in stitches”, “pulling the wool over my eyes” and “a lot of needle”, this program can be fed a standard 32K QL mode 8 screen and you can cut out a section to use as a knitting pattern. The program then converts this to a knitting pattern, as shown in figure 2, telling you how many stitches of each colour is required to produce a pattern from the picture cutout, scaled to suit the number of stitches and rows. It also allows for left/right mirror imaging, depending on how you knit the pattern.

The pattern can be included in an existing knitting pattern for a sweater or similar.

If your system has SDUMP screen dump facilities for your printer, you can include a picture of what the finished pattern should look like.

<http://www.dilwyn.me.uk/misc/index.html>



The opening screen of the program

Knitting Pattern For Children's Sweatshirt	
Row 1	20 Black
Row 2	4 Black, 10 White, 3 Black, 1 White, 3 Black, 20 White
Row 3	3 Black, 10 White, 2 Black, 2 White, 6 Black, 20 White
Row 4	2 Black, 13 White, 1 Black, 2 White, 7 Black, 20 White
Row 5	2 Black, 18 White, 7 Black, 23 White
Row 6	1 Black, 20 White, 6 Black, 23 White
Row 7	1 Black, 20 White, 6 Black, 23 White
Row 8	22 White, 5 Black, 23 White
Row 9	4 White, 6 Black, 10 White, 5 Black, 5 White, 18 Black
Row 10	4 White, 6 Black, 4 White, 6 Black, 2 White, 18 Black
Row 11	4 White, 8 Black, 9 White, 6 Black, 2 White, 18 Black
Row 12	4 White, 7 Black, 10 White, 6 Black, 2 White, 18 Black
Row 13	4 White, 6 Black, 11 White, 6 Black, 2 White, 18 Black
Row 14	4 White, 5 Black, 13 White, 6 Black, 2 White, 18 Black
Row 15	4 White, 5 Black, 13 White, 6 Black, 2 White, 18 Black
Row 16	4 White, 6 Black, 10 White, 6 Black, 2 White, 18 Black

A sample pattern (handles up to 8 colours, though only 2 used in this pattern)

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George Gwilt writes:

There are several changes to my programs.

Enhancements:

SETW, which produces PE window definitions, now allows more overlap of information windows. (This change results from the workshop at the QUANTA AGM.)

EasyPEasy, which is aimed at easy PE assembler programming, now makes it even easier to produce a window working definition.

Corrections:

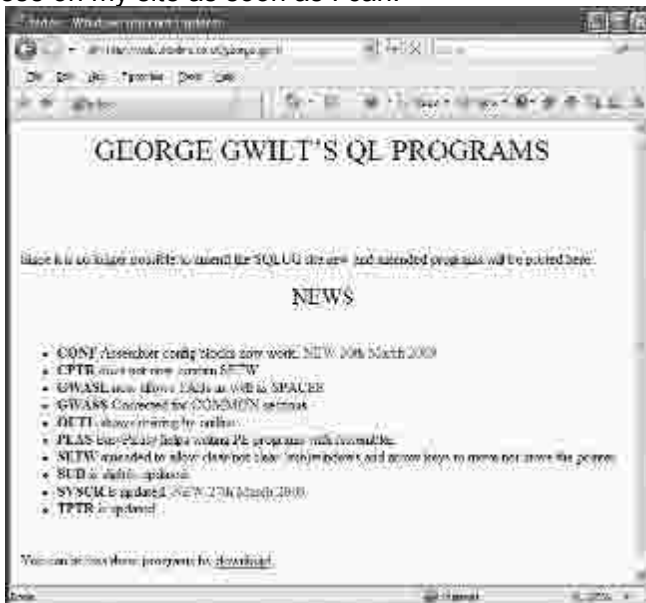
TurboPTR, which produces PE programs via S*BASIC, now has a correct tptr_bas.

GWASS, the assembler, now assembles MOVEC correctly.

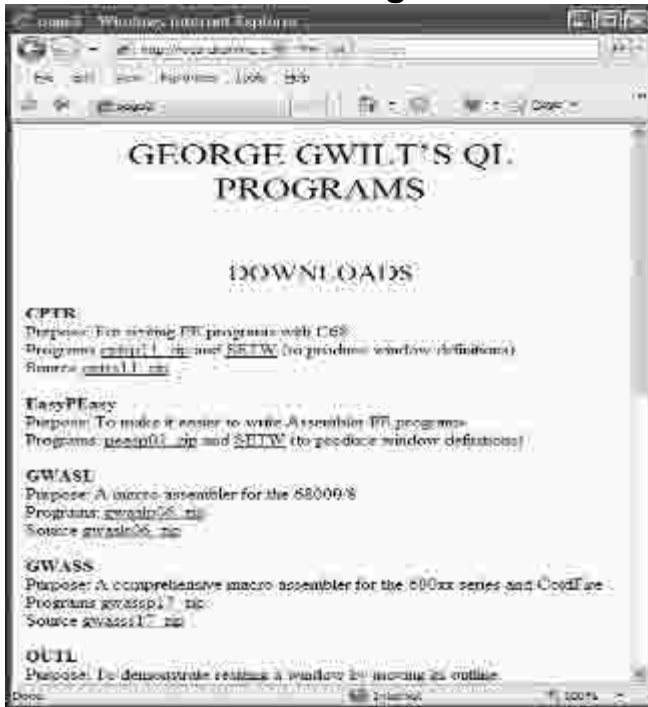
Minor changes:

net_peek, which analyses RAM possibly across a network, now traps buffer overflow in IO_EDLIN, so a user has more protection on keyboard input.

I will put these on my site as soon as I can.



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Screen Dumps From George's Web site

News From Jochen Merz

A new version of Qmenu, version 8.02, is now available. The current versions of QMenu are only licensed for use on SMSQ/E systems. The previous version had a small bug, however, in that it tested for QPC, not SMSQ/E.

Jochen has uploaded QMENU 8.02 to the JMS update server - so it's there for free download for all registered users. It includes Scrap extension v 1.13.

To get the online updates, simply go to <http://smsq.j-m-s.com/> and click on the "JMS Online Updates". You need to be a registered user of the service, so if you haven't yet done so, contact Jochen for a password to use the service.

If using Internet Explorer to access this service, you may need to reduce the privacy settings on the privacy tab (in Internet Explorer, go to the Tools menu, then the Internet Options command, then click on the Privacy tab, where you will see a slider control, reduce this to minimum setting ("Accept All Cookies") while you login then restore it to original settings afterwards.

1. Library CDs

I hope that those who have already got a copy of the Silver Jubilee Library CD are happily perusing the wide range of software in the Library. Don't forget that this CD is still available and may be ordered via the usual Library software channels – see your QUANTA Member's guide for details. If your system can read QXL.WIN filing systems (QXL, QPC, QemuLator for Windows, uQLx) you can use this CD to access the entire library. If your system doesn't directly support QXL.WIN CD systems (e.g. Q40/Q60) you may be able to read the CD quite easily with programs like Duncan Neithercut's excellent QCDEZE program. I am not sure about Qubide systems – Version 2 Qubide can connect an Atapi IDE CD system, and a version of Discover exists for Qubide which can transfer files from some media, but I don't know if this includes QXL.WIN CDs.

2. Steve Poole Demo Disk

Steve Poole has sent me a potentially very interesting demo disk which makes use of vector fonts. I say "potentially" because the disk I got is corrupt and not all the files are readable, so hopefully by the time you read this, Steve will have sent me another copy. The demo disk was originally written many years ago and sent to QL World in response to an allegation that it might not be possible to produce vector font text on a QL, although it was never published. A chance conversation with Steve at QL Is 25 brought up this topic and he promised to send me a copy if he could recover it from the original microdrives.

The picture below shows an example screen I created by slightly hacking one of his demonstration programs. It uses the Turtle Graphics and other graphics coordinate based commands in conjunction with the SCALE command to generate scalable characters drawn on screen.



QL Today Subscription

We are approaching Volume 14 of QL Today. J-M-S is happy to continue, and Bruce Nicholls of Quo Vadis Design will take care of the UK delivery. You can subscribe by using this form (or a copy of it), or subscribe online via www.QLToday.com (the form can be downloaded), by email, letter, fax etc. ... we are very flexible!

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Back-issues of all Volumes of QL Today are also available. If you search for a specific issue, please let us know. If we do not have it, we will re-print it for you. If you want more back-issues, the per-issue price goes down as the postage plays a major part in the pricing. Even German back-issues are still available (from the first years of QL Today).

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The programs are written in basic and run as a chained set of demos. Here's a sample screen from the vector fonts demo program, which gives an impression of the way the vector font drawing works.

```
BRUSH FONT (4mins).  
This program creates a scaleable, shadowed, highlighted font.  
Each character is defined by anchor-points drawn as circles.  
The circles may be linked by bars OR sweeping arcs of circles.  
Characters are graphics-windows, enlarged by a scale factor.  
Changing letter thickness is easy.  
The demo shows the capital alphabet with growing enlargements.(5 mins).  
HIT any KEY to continue.....
```

Unfortunately, I can't run some of the programs at the moment, so more on this impressive-looking demo in the next issue.

If you have software you have written which you'd like to go into the QUANTA Software Library, please send them to me at the usual address (see inside front cover).

POINT OF VIEW

Albert J. Newell

Motivation.

I have been reading, both in QUANTA Magazine and QL Today, submissions as to the future of QL and its supportive organs and I am sometimes left wondering within what context the various contributors formulate their opinions. I further thought that it might be an idea to promote an investigation as to why QLers are such and how do they view the viability of the whole enterprise within such parameters.

Regards

A[albert] J. Newell.

Transferring Files Between QLs And Emulators

A recurrent source of questions at “QL Is 25” was how to transfer files between a QL and a QL emulator on a PC. This is a direct result of the number of people moving to using an emulator, plus a number of people who have gone back to using QDOS after a number of years of not using a QL. The QL’s strong web presence manages to attract some ex-users back into the fold and they are mainly using one of the Windows QL emulators, QPC2, Q-emuLator, or QL2K/QLay.

So I decided to dedicate a couple of Helpline columns to this subject. I am fortunate to have received an article about serial port file transfer from a QL direct into Q-emuLator from John Nunez to get all this started, which I have reproduced below, with permission from him.

File transfer between QL and emulators can be broadly categorised as follows:

1. Serial cable file transfer on systems supporting serial ports.
2. Using floppy disks, where the QL system has a disk drive and the target system can read QL floppy disk programs.
3. Using QL disk readers in the target environment (e.g. a program like QLTools in DOS or Windows)
4. Specifically in the case of QLay, QLay2 or QL2K, the use of the specially written tools programs QLAYT and QLtoolsq to move files between environments. I intend to cover this in a future article, but in the meantime have a look at an article in QL Today’s review of QLay 2, which included some details of how to use the qltoolsq and QLAYT tools programs to transfer files both between floppy disk using QLtoolsq and between the Windows hard disk and the native QLay hard disk filing systems using QLAYT. The article was called “My Holiday Romance” and appeared in the December 2007 (Volume 12 Issue 2), on pages 42 to 51. The part of the article about the tools programs appears on pages 48 and 50.

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5. The use of the Sernet software to network computers which have serial ports.
6. Understanding the file headers situation, where the loss of the executable program file header prevents the program running properly after transfer.
7. The use of Zip and Unzip programs to package a number of files together for transfer and to preserve file headers. How to get the Zip/Unzip executables over to the target system in the first place, either by manually “restoring” the executable file header, or by using Jonathan Hudson’s self-extracting archive.
8. The use of the QL network to transfer files to a QXL or Aurora system, where one of the machines does not have floppy disk drives.
9. The advantages of having Toolkit 2 on your system and the advantages of the improved co-processor chips like Hermes in improving reliability of the QL serial ports.
10. The use of the DOS device driver in QPC2.
11. The use of terminal software on both source and target computers to transfer files, such as QTPI on QDOS/SMSQ systems and Hyperterminal in Windows. This is a subject I have never tackled and would be very grateful for any contributions about it.

I'll start with the use of the serial ports to transfer files directly from the QL to another machine. This subject came up on the QL Users mailing list recently and after a flurry of discussion between John and people with experience of this, John kindly wrote up the details of how he had approached and solved the problems. John uses Q-emuLator, which supports the use of the PC's serial ports as though they were QL serial ports, so his article is mainly about direct QL to Q-emuLator file transfer via the serial interface. As QPC2 also supports serial ports, most of this article should be applicable to QPC2 as well.

Once you have the required cable for serial port transfers, it is fairly straightforward to copy text files and other fairly straightforward data files with simple copy commands on the QL and in a DOS command line in Windows. Bearing in mind that most versions of the QL have a unique type

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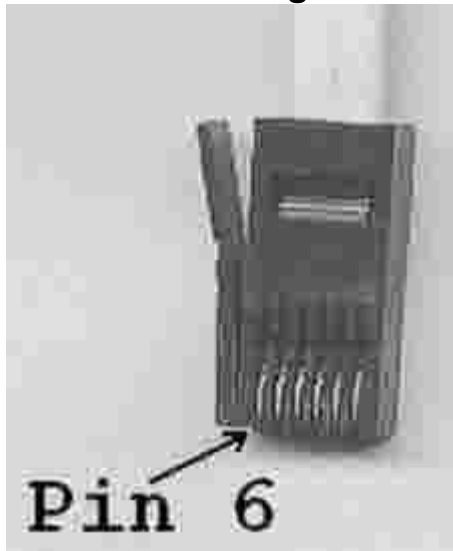
of connector, a 6-pin plug which looks a bit like a British telephone connector, but is not compatible with it, so you cannot use a telephone extension to create a serial lead, for example, it might be best to ask someone like Tony Firshman to make a suitable lead for you. John has included details in his article of where he got details of a suitable serial lead from – follow the link to Sinclair Shop he includes in his article below.

There is a more detailed article on the subject of serial port linkages on my web site at

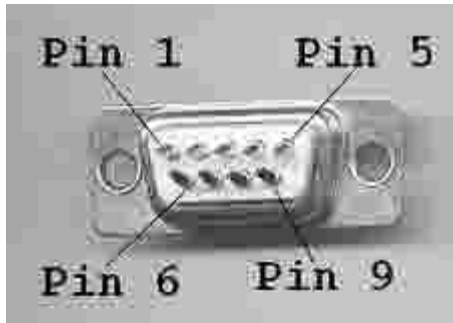
<http://www.dilwyn.me.uk/gen/serial/serial.html>

It's best to use serial port SER2 for QL to PC communication if you are making your own cable, as wiring is a bit easier. SER1 is basically wired as though it was a modem (called a DCE or Data Communications Equipment), with somewhat reversed wiring. SER2 is configured to be seen as a computer (called a DTE or Data Terminal Equipment). If you do use SER1, simply swap pin 2 and 3 over, and swap pin 4 and 5 over.

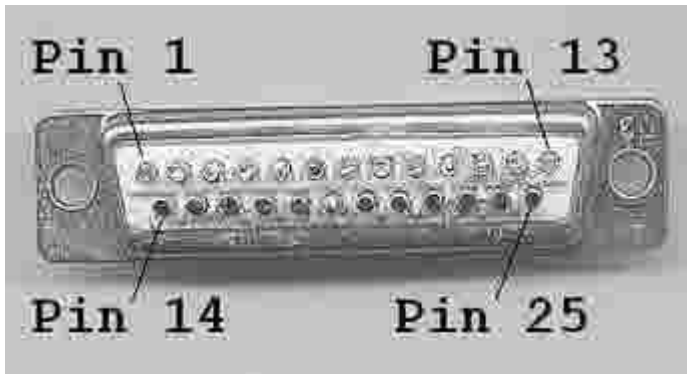
QL SER1	QL SER2	QL CABLE COLOUR	DIRECTION	PC SIGNAL	PC 25-PIN D	PC 9-PIN D
pin 3 RxD	pin 2 TxD	white	→	RxD	pin 3	pin 2
pin 2 TxD	pin 3 RxD	green	←	TxD	pin 2	pin 3
pin 5 CTS	pin 4 DTR (=RTS)	blue	→	CTS	pin 5	pin 8
pin 4 DTR (=RTS)	pin 5 CTS	red	←	RTS	pin 4	pin 7
pin 1	pin 1	black	—	GND	pin 7	pin 5
N/A	N/A	-	-	DSR	pin 6	pin 6
N/A	N/A	-	-	DTR	pin 20	pin 4



QL Connector Pin Numbers



9-Pin (DB-9) Cable Socket Pin Numbers (viewed from solder terminals)



25-Pin (DB-25) Cable Socket Pin Numbers (viewed from solder terminals)

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It's important that the handshaking lines are connected correctly, otherwise transmission may fail completely, or it may only work at very low baud rates.

Once you have a suitable cable, transferring a data file from QL to PC is as simple as this. Set a suitable baud rate at both ends. 9,600 baud is probably a good starting point, since this is the fastest speed at which a QL is likely to work (a PC can generally handle any baud rate the QL is likely to be able to throw at it, since the QL is unlikely to work at anything higher than 9,600 baud, in some cases it may struggle even with this baud rate, although the Hermes chips from TF Services can improve QL serial port performance to some degree). Set the baud rate on the QL with BAUD 9600 for example. The PC's baud rate can be set in the Control Panel / System/Hardware / Device Manager / Ports (COM & LPT) menu in Windows – you may find this is the default offered on some PCs.

In Windows, go to a DOS command line, e.g. from the RUN command in the start menu, enter the “program” name cmd, i.e. run cmd

In the command line, enter this command to copy a file coming in from the PC's serial port to a given filename. Note that there should be spaces between the three parts of the command.

```
copy com1 filename
```

If you wish you can add a switch between the source name (com1) and the destination name (filename in the example) to specify that the file being copied is an ASCII text file or a pure binary file. The switches are:

```
Copy com1 /A filename
```

tells the PC that the file being copied from com1 is an ascii text file and the PC will handle it accordingly.

```
Copy com1 /B filename
```

tells the PC that the file being copied from com1 is a binary file and the PC will attempt to handle it accordingly.

Com1 should be changed to whichever COM port is being used, and filename is the filename you want the PC file to have, something like
C:\qlfiles\test.txt

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If transferring text files, another DOS command you can use is:
Type `com1 >filename`

Where the `>filename` means that what would normally be screen output is sent to a file instead.

On the QL side, enter a command like:
`COPY_N mdv1_filename TO ser1hz`

At this point there's two QL-specific issues to check:

1. The device name suffix, e.g. the `hz` in `ser1hz`
2. The difference between the various versions of the QL's `COPY` commands

The device name suffix takes a number of optional parameters such as parity, where `e/o/m/s` stand for even, odd, mark or space respectively. Don't worry too much about this for now.

Handshaking can be either `i` (ignore) or `h` (handshake). Normally, for file transfers, it is best to use `h` (use handshaking) to maximise reliability.

The protocol parameter can be `r`, `z`, or `c`. Each has its uses:

`r` – raw data, no EOF indication is sent (use for binary files)

`z` – CTRL Z (CHR\$(26)) is used to indicate end of file (also known as EOF), normally used for simple data file or ASCII text file transfer

`c` – this is like `z` but converts end of line characters between the QL's linefeed or CHR\$(10) and a PC's carriage return or CHR\$(13)

SMSQ/E serial port names can have additional port name qualifiers, but we'll ignore these for now (see under Serial IO Devices in the SMSQ/E manual).

COPY

The standard QL has two versions of the `COPY` command

1. `COPY_N` copies the file without a header.
2. `COPY` will copy the file with or without a header depending on whether it thinks the destination is a directory device or not.

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In addition there is a COPY_H command added by Toolkit 2 which (in theory anyway) will ALWAYS copy a file with a header.

Some experimentation is needed here to find the combination of commands best suited to the type of file you need to transfer. Two problems can arise:

1. End of file. If transferring a binary file, e.g. machine code or an executable program, there is a chance it may contain a CHR\$(26) or CTRL-z. This indicates end-of-file to the PC and transfer may stop at that point, leaving you with a truncated file, with parts of it missing. In this case, try using the binary non-EOF commands.
2. Transfers which don't end automatically. You may find that once all the file is transferred, one or both computers may 'hang'. The computer(s) concerned are waiting for an end of file signal. You may be able to manually abort and break out of this transmission stalemate using CTRL-space on the QL, or CTRL-C at the PC end. You can then compare file lengths to make sure that the file transfer was complete.

Don't get too discouraged if you struggle to get serial port links working, or they only work slowly. I remember only too well how I struggled with my early efforts and how many times I pestered helpful people like Tony Firshman for help. Serial transfers can work first time and work well, but if you mis-wire a cable, for example, it can be a source of great frustration. Very occasionally you will encounter machines that simply refuse to talk to one another for no obvious reason. I used to have a laptop which just would not talk to a QL at all, yet the same cable used on other PCs would work perfectly satisfactorily.

QL To Q-emuLator Serial Transfer

I am grateful to John Nunez for permission to print the following article, which describes how to go about transferring files from a QL direct to Q-emuLator, using the QL serial port and the Q-emuLator using the PC's serial port. This is a very quick and useful way to transfer files directly from a QL into the emulator without having to resort to fiddly floppy disk transfers, or copy from QL to Windows and then have to worry about how to get the files from Windows into the emulator.

Here is what I did; I wrote it so that hopefully even someone in my situation (i.e. pretty clueless on QL tech aspects) would be able to get results. I am not a regular QL user; but I am very fond of my QL, and occasionally fire it up to remember how things were. It was the first *real* computer I ever owned.

Just as a reminder, I have a QL that I haven't used since the late eighties when I was a teenager. It is a plain QL with no fancy bits and pieces that have come along since, like floppy drives, toolkit II's, gold cards, etc. I also have about thirty microdrives with old files I'd created as well as some commercial games with considerable sentimental value to me. A lot of these cartridges are on their last legs, and I wanted to get the files off and onto a PC where they will be safe, and I can run them on an emulator; I can't say that I miss that QL keyboard! And I wanted to do this using just a serial cable; what followed was hours and hours of frustration (well, if I'm honest, I actually quite enjoyed it, as all those QL memories came flooding back...).

I will not cover the usage of QemuLator as it already includes excellent documentation.

There are three steps.

- 1. Connecting the hardware**
- 2. Getting software onto the QL that will allow us to copy files back to the PC (i.e. QemuLator) without losing header information.**
- 3. Copying the actual files from the QL to the PC.**

1. Connecting the Hardware:

This is what I used:

- My original QL, microdrive cartridges, etc
- Windows XP laptop with QemuLator v. 2.5 installed
- Serial cable to link the two together (like the one here:

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www.thesinclairshop.com/PDF/sinclairserialadaptor.pdf)

I did not have to change anything with com port settings on the PC, or change any of the defaults on QemuLator. My laptop has one physical COM port which is the usual DB9 male connection and is seen as COM1 by XP.

I connected one end of the cable to the PC's COM port, and the other to the SER1 port on the QL.

Connectivity can be tested by typing at QemuLator:

```
copy ser1 to scr_
```

The QL's flashing cursor will disappear as the command runs and waits for data on the SER1 port.

On the QL, type the following

```
open #4,ser1  
print #4,"Test"
```

You should see the word "Test" appear in QemuLator

Still on the QL, type

```
close #4
```

In QemuLator, press ctrl-space, the cursor should reappear. A "not complete" message also appears (this message will appear later when we transfer files and press ctrl-space, but can be ignored as the files DO transfer correctly).

2. Getting software onto the QL that will allow us to copy files back to the PC (i.e. QemuLator) without losing header information:

The first thing we need to do is copy the MdvToWin program (which is supplied with QemuLator) from the PC to the QL and fix it after the transfer so that it works (i.e. restore the file header). This program can then be used to transfer files from the QL back to QemuLator, correctly preserving them.

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So first, we set up an mdv1_ on QemuLator which holds the MdvToWin_exe file. On the QL, place a writeable microdrive cartridge with free space in mdv1_

To copy from the QL to QemuLator I did not have any problems with defaults (I believe the default rate is 9600 bps); however, I could not copy TO the QL if I didn't bring this down to 1200, so on both the QL and QemuLator, type

BAUD 1200

(there is no confirmation message from this command)

On QemuLator, type

```
copy mdv1_MdvToWin_exe to ser1
```

(the cursor stops flashing)

on the QL, type

```
copy ser1 to mdv1_MdvToWin_exe
```

The microdrive will whirr into life as the file is transferred. You will know when the file transfer has completed, because a cursor will start flashing on QemuLator, and then the QL microdrive will stop; at this point hit ctrl-space on the QL.

We now have the MdvToWin_exe on mdv1_ on the QL, but it won't run, because its header has been lost, so it needs to be recovered.

The first thing we need to know is the length of the MdvToWin_exe file in bytes. We can get this by right-clicking on the file in Windows and bringing up its properties. For the version I used, it was 1058 bytes.

[If you have Toolkit 2 on the QemuLator or QL system, you can also use the FLEN extension like this from Basic:

```
PRINT FLEN(\mdv1_MdvToWin_exe)
- DJ]
```

Taking this number, on the QL, we type

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LET addr = respr(1058)

We then take these two numbers and on the QL we type
lbytes mdv1_MdvToWin_exe,addr
sexec mdv1_MdvToWin,addr,1058,512

The MdvToWin file is the new file which WILL execute correctly, and is saved to mdv1_ by the above command. I don't know what the 512 is, but (for me at least), it all works.

[it's called "dataspace" - the amount of memory a program needs for its data area when it is running - DJ]

On the QL, type

```
exec_w mdv1_MdvToWin
```

and you should get a program running with a title of MDV -> Q-emulator for Windows 95

We can now use this executable to transfer files from the QL to the PC (QemuLator)

3. Copying the actual files from the QL to the PC.

Restart the QL and the QemuLator. This is to set the baud rate back to 9600, and get everything to a standard state.

As an example I have a file on mdv1_ on the QL called index_dbf, which I want to copy across to the PC. In mdv2_ on the QL I have the MdvToWin file I "created" earlier. In QemuLator, I have a (virtual) microdrive, mdv2_ set up and mapped to a folder on the underlying PC

Connect the QL the PC, and power both on. On the QL:

```
exec_w mdv2_MdvToWin
```

The MdvToWin program executes and asks for the source file, give it:

```
mdv1_index_dbf
```

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The program scans the file, once finished it then prompts for the destination, enter:

Ser1

At this point the data is sent down the serial port and the QL no longer shows any cursor activity, as it waits for the data to be accepted from the other end, so...

On QemuLator enter

```
copy ser1 to mdv2_index_dbf
```

The mdv on QemuLator will light as data is copied to it and the file is created. Once the transfer completes, on the QL there will again be a flashing cursor. Once the copy finishes, i.e. flashing cursor on QL, AND mdv "light" extinguishes on QemuLator, press ctrl-space on QemuLator. The MdvToWin executable also reports a successful transfer.

The file is now accessible to QemuLator.

This can be repeated as many times as required to get as many files copied as possible. I successfully transferred the Psion Chess program from the original microdrive using this method, and can run it on QemuLator now.

***** THE END *****

I hope the above is all correct. I've checked it all, but even with the best of intentions, I tend to find that mistakes always seem to sneak in somehow.

And once again, thanks to everyone who responded so promptly with help and advice. It's nice to see that there's a community based around the QL that's still going strong, even now.

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QL WEB SITE (AND PROUD OF IT)

Dilwyn Jones

What better for a QL-related web site than to say to the world, "I'm a QL site and proud of it".

You may have noticed that some sites like Marcel Kilgus's site display a little icon in the address bar of the browser when you visit the page. It can also be displayed in Favourites lists and on the tabs in recent browsers which allow tabbed browsing. As an example, Marcel's site displays his QPC2 logo (a little QL monitor screen display with QPC II displayed). It can also appear next to the title of a tab in the browser and in the Favourites (bookmarks) list in some browsers.



Marcel's home page, showing the QPC II icon.

For my site, I designed this little black and silver "QL" logo:



My home page, with the "QL" icon.

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The system is usually referred to as just “favicon.ico”, the filename normally given to the little icon.

My awareness of all this started during an email conversation with Tony Firshman (thanks Tony). A quick spell reading up about it via the Internet search engines explained how to do this, and I thought it'd be nice to write it all up so that other QL webmasters can proclaim that their QL web site is “QL” too.

The first thing you need is a small icon, in Windows .ico format. This should be a minimum of 16 x 16 pixels, up to a maximum of 32 x 32 pixels. This is placed in the root directory of your web site (you can actually place it anywhere as long as you link to it appropriately). Call it favicon.ico. There are a number of free Windoze icon editors and utilities out there – I made mine using Windows Paint to create a 16 x 16 picture, then copied it to Irfan View to convert it to a .ico icon file. Some browsers will let you use a 16 x 16 .gif or .png file too, although the system was originally intended for use with Windows icons and support varies depending on the version of the browser. Don't expect Lynx to display the icon, or very early Internet Explorers or early Netscapes to work properly. Tony Firshman suggested a program called Fx Icon 32:

<http://www.jhepple.com/iconmkr.htm>



The favicon.ico icon

Then, you need to add one link tag to the header part of the HTML page, usually the index.html (homepage) of your web site:

```
<LINK REL="shortcut icon" HREF="http://dilwyn.me.uk/favicon.ico"
TYPE="image/x-icon">
```

The words LINK, REL, HREF and TYPE can be in lower case if you wish.

For some reason, we had problems trying to use relative URLs... we struggled to get it to work with HREF="/favicon.ico" or HREF="favicon.ico" even though it was in the same directory.

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The other issue we had was with the browsing cache. If I had already visited the site, it didn't always pick up the new icon. The solution was simple: just clear the browsing history in your browser, e.g. in Internet Explorer go to Tools menu, Internet Options, then the General tab and the Browsing History section to clear out the history. On earlier browsers such as Internet Explorer 5 and 6 the icon is only used if the page has been added to the Favourites bookmark lists.

Modern browsers will usually find the file called favicon.ico in the root directory of a web site and display it for the site pages without necessarily needing the above line of html in the header of your pages, although the link is particularly useful if different pages need different icons.

So there it is – a simple little addition to a QL web site that shouts out QL to the world!

I've put the icon and this article on my web site so that anyone can use the QL icon for their web site (as long as it's a QL-related web site of course!). Just go to my HTML Utilities page at:

www.dilwyn.uk6.net/htmlutil/index.html

and download the favicon.zip which includes the icon itself which you can use as you see fit!

ANOTHER POINT OF VIEW

Steve Poole

My brother, who is an Electronics Engineer specialised in PCs, has just downloaded the new Microsoft Windows system beta-test-version baptised simply 'SEVEN'.

It was designed to be a much more user-friendly system than 'VISTA' which was basically a commercial failure, as most people went back to using 'XP'.

His opinion is that M\$ are simply trying to copy the functionality of the Linux systems, having realised that they have gone over the top with bloatware, and will never be able to be as efficient as APPLE OS's either.

This is a great tribute to Linux, especially as IBM and other major computing firms have adopted the system in the place of M\$. It is also a tribute to Linus Torvalds and the QDOS of Tony Tebby which inspired him.

There is still reason to value the QL system!

Quite a few years ago, the television was full of reports of the mass graves at Timisoara in Rumania. With one eye on the screen, I started to write a screen-saver which featured bouncing balls. At the time, I failed, as the balls would often 'stick' to each other when once they touched, and I lacked the spare time then to analyse the problem, and subsequently forgot all about it.

Now, being retired, I am re-examining all my past failed programs and trying to see if I can get them to work. Thus, I came back to 'bouncing balls', which I tackled by examining every aspect thoroughly and systematically making sketches of every stage of the graphics, and cracked the bug that had stumped me before : The x and y steps must be rigorously equal, else testing for a collision and inverting the ball's direction can become very troublesome.

One trick I used at first was to write code to simply move squares around the screen, which are easier to scrutinise than circles. Then, when the routines worked as expected, the 'draw squares' procedure was modified to draw circles instead, which the system does far faster for a better animation.

Strictly speaking, bubbles should rebound at incident angles in relation to their centres, but instead I simply check the ranges of interacting edges to shorten the coding, where I inverse the horizontal and vertical steps of each square. Commercial computer games originally did absolutely no collision testing at all, they just allowed sprites to overlap on the same locations.

This program works in a similar way to window-clicking routines to test for overlaps. (Run the program with squares to reveal the logic, and notice how rebounds can then occur on the 'corners'). Circles may overlap as they rebound, as they in fact use the 'squares' collision detection, which therefor becomes approximate, but effective. The rebounds could be improved still further, but the code is long enough to type in already! I have had to sacrifice the detection of obscure rebound cases to keep speed as fast as possible. If I can find a kinetics formula on the web, I will do a simplified vectorial billiards simulator.

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Finally I added code to increase the number of bubbles from two to three, to allow a much more interesting effect. But for say 8 bubbles, you will have to remodel the hit-tests using arrays as the number of permutations will increase exponentially. Set 'rings' to 1 for bubbles or to 0 for squares. Set 'FL' to 1 to fill them, or to 0 for better speed. Set the pause delay, 'ps' to slow the output. This program was written on a 333Mhz portable laptop on which the output is smooth. It will probably run slower on an original 7.5Mhz QL, in which case deactivate any filling. If you want to go further, try altering the program to show as many bubbles as you wish. (Or using bubble numbers, write a rudimentary random number generator...reading them from left to right across the screen. This is how national lottery ball bouncing produces winning numbers).

As I said at the beginning, this program was written as a screen saver, so just let it run, sink a beer and let your spirit wander. Hit 'q' to quit, or 'n' to start a new run should two balls get permanently stuck in repeating, parallel trajectories.. But you will encounter less 'Harmonic loops' than with two bubbles. If you wait long enough, the display should escape from such harmonic repetitions.

As an aside, this code and article took me two rained-out holi-days to write, debug and tweak: So, finally, I am pleased that I have overcome the problem which stumped me one Xmas Eve a long time ago, when I tried to simulate the Brownian motion of molecules...

The main problem was due to the lack of ergonomy of using bottom-up code-writing on screen. It is far quicker to write code using a pencil, paper and rubber than to pan and scroll around a screen. Then enter and debug it using top-down programming. It is generally difficult beforehand to predict which of the two methods to adopt when you have not decided exactly how you want your program to evolve. A mix of the two usually works, the main consideration being not to get stuck in a confusing rut.

By the way, it was subsequently proved that the Rumanian mass graves were a sinister hoax mounted by a press magnate, but the president and his wife were lynched by the mob all the same...

If any readers know how to deactivate the standby function of PCs would they please contact the editor, as this would make it easier to use as a screen-saver program.

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```
100 ::
110 REMark Bounce_bas by S.Poole, v11aug2008
120 REMark Beta-test by B.Coativy.
130 CLEAR: OPEN#1,CON_16: WINDOW 512,250,0,0: INK 7:
CLS
140 RANDOMISE DATE: SCALE 100,0,0: BORDER 1,4:
OVER-1
150 :
160 REMark Set fixed global variables:
170 r=11: r1=r+2: r2=r*2: wide=140: high=91: ps=3: rings=1:
fl=1
180 REMark ball starting coordinates:
190 x1=131: y1=65: x2=25: y2=21: x3=80: y3=42
200 REMark save old coordinates to erase sprites:
210 ox1=x1: oy1=y1: ox2=x2: oy2=y2: ox3=x3: oy3=y3
220 INK 4: square ox2,oy2,r,2: INK 6: square ox3,oy3,r,3
230 REMark initial Horizontal & Vertical vectors:
240 H1=1: H2=1: h3=1: V1=1: v2=1: v3=1
250 :
260 REPEAT loop
270 INK 2: square x1,y1,r,1: ox1=x1: oy1=y1:
i$=INKEY$(#1,ps)
300 INK 4: square ox2,oy2,r,2: INK 6: square ox3,oy3,r,3
310 REMark hit 'q' to quit or 'N' for next run:
320 IF i$=='Q': EXIT loop: ELSE IF i$=='n': RUN
330 :
340 x1=x1+H1: y1=y1+V1
350 REMark window border collision test:
360 IF x1<r: x1=r: H1=-H1
370 IF x1>wide: x1=wide: H1=-H1
380 IF y1<r: y1=r: V1=-V1
390 IF y1>high: y1=high: V1=-V1
400 hit_test 1
410 :
420 REMark Do balls 1 & 2 hit?
430 REMark try all edges:
```

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440 IF b1 AND b2: Inverse 12
450 IF b1 AND b4: Inverse 12
460 IF b2 AND b3: Inverse 12
470 IF b3 AND b4: Inverse 12
480 :
490 REMark Do balls 1 & 3 hit?
500 IF b5 AND b7: Inverse 13
510 IF b5 AND b8: Inverse 13
520 IF b6 AND b7: Inverse 13
530 IF b6 AND b8: Inverse 13
540 ::
550 INK 4: square x2,y2,r,2: ox2=x2: oy2=y2
560 x2=x2+H2: y2=y2+v2
570 IF x2<r: x2=r: H2=-H2
580 IF x2>wide: x2=wide: H2=-H2
590 IF y2<r: y2=r: v2=-v2
600 IF y2>high: y2=high: v2=-v2
610 hit_test 2
620 :
630 IF b1 AND b2: Inverse 12
640 IF b1 AND b4: Inverse 12
650 IF b2 AND b3: Inverse 12
660 IF b3 AND b4: Inverse 12
670 :
680 IF b9 AND b11: Inverse 23
690 IF b9 AND b12: Inverse 23
700 IF b10 AND b11: Inverse 23
710 IF b10 AND b12: Inverse 23
720 :
730 INK 6: square x3,y3,r,3: ox3=x3: oy3=y3
740 x3=x3+h3: y3=y3+v3
750 IF x3<r: x3=r: h3=-h3
760 IF x3>wide: x3=wide: h3=-h3
770 IF y3<r: y3=r: v3=-v3
780 IF y3>high: y3=high: v3=-v3
790 hit_test 3

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```
800 :
810 IF b5 AND b7 : Inverse 13
820 IF b5 AND b8 : Inverse 13
830 IF b6 AND b7 : Inverse 13
840 IF b6 AND b8 : Inverse 13
850 :
860 IF b9 AND b11 : Inverse 23
870 IF b9 AND b12 : Inverse 23
880 IF b10 AND b11: Inverse 23
890 IF b10 AND b12: Inverse 23
900 :
910 INK 2: square ox1,oy1,r,1
920 END REPeat loop: OVER 0: WINDOW 256,206,256,0:
CLS: STOP
930 ::
940 DEFine PROCedure square(sx,sy,sr,sn)
950 REMark CURSOR sx,sy,0,0: PRINT sn
960 IF rings THEN
970 FILL fl: CIRCLE sx,sy,r1: FILL 0
980 ELSE
990 PENUP: LINE sx,sy: TURNT0 0: MOVE sr: PENDOWN:
TURN 90: MOVE sr
1000 TURN 90: MOVE sr*2: TURN 90: MOVE sr*2: TURN 90:
MOVE sr*2: TURN 90: MOVE sr
1010 END IF
1020 END DEFine
1030 :
1040 DEFine PROCedure Inverse(iv)
1050 REMark Only inverse if directions oppose:
1060 IF iv=12 THEN
1070 IF H1<>H2: H1=-H1: H2=-H2
1080 IF V1<>v2: V1=-V1: v2=-v2
1090 END IF : REMark balls 1 & 2.
1100 :
1110 IF iv=13 THEN
1120 IF H1<>h3: H1=-H1: h3=-h3
```

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```
1130 IF V1<>v3: V1=-V1: v3=-v3
1140 END IF : REMark balls 1 & 3.
1150 :
1160 IF iv=23 THEN
1170 IF H2<>h3: H2=-H2: h3=-h3
1180 IF v2<>v3: v2=-v2: v3=-v3
1190 END IF : REMark balls 2 & 3.
1200 END DEFine
1210 :
1220 DEFine PROCedure hit_test(ht)
1230 REMark initialise overlap flags:
1240 b1=0: b2=0: b3=0: b4=0: b5=0: b6=0
1250 b7=0: b8=0: b9=0: b10=0: b11=0: b12=0
1260 :
1270 REMark see if square edges overlap:
1280 IF x1<=x2: IF (x2-x1)<r2: b1=1
1290 IF y2<=y1: IF (y1-y2)<r2: b2=1
1300 IF x2<=x1: IF (x1-x2)<r2: b3=1
1310 IF y1<=y2: IF (y2-y1)<r2: b4=1
1320 IF x2<=x3: IF (x3-x2)<r2: b9=1
1330 IF x1<=x3: IF (x3-x1)<r2: b5=1
1340 IF x3<=x1: IF (x1-x3)<r2: b6=1
1350 IF x3<=x2: IF (x2-x3)<r2: b10=1
1360 IF y2<=y3: IF (y3-y2)<r2: b12=1
1370 IF y1<=y3: IF (y3-y1)<r2: b8=1
1380 IF y3<=y1: IF (y1-y3)<r2: b7=1
1390 IF y3<=y2: IF (y2-y3)<r2: b11=1
1400 END DEFine
1410 ::
```

End of Listing.

[As usual, to save you the task of typing in this listing, Steve Poole has requested that it is placed on the QUANTA Web Site as a download. This will be done in the next few days - Ed]

QUANTA Magazine

SUBGROUP MEETINGS

THE WEST MIDLANDS QL USER GROUP

This long-running group has moved back to its previous venue, the Queens Head pub in the City Centre. Meetings remain open to QUANTA members and non-members alike. The Queens Head is in Steelhouse Lane, Central Birmingham, four minutes walk from Snow Hill main-line railway station and has ample street parking nearby.

Meetings are usually on the first and third Monday of each month (but not on Bank holidays unless the previous one was cancelled for that reason). After your first meeting you're expected to pay £1 each time towards the organisation and monthly newsletter costs - except once a year when the group pays all those who attend a pound instead (We provide food twice a year for those who attend the AGM and the group's birthday party) and at meetings we discuss all sorts of things, QL-related and otherwise, usually from about 8:20 pm. onwards till 10:30 or later. The group owns QL hardware, a disk library and subscribes to relevant magazines. People can join the mailing list for £3.50 per year, even if they can't attend regularly.

The contact number is Mike Bedford White's, on 0121 605 4438, anytime after 11 am.

Email: mikebwhite@blueyonder.co.uk

QUANTA DORSET SUBGROUP

Meetings are held, on the second Sunday of each month at the Merley Community Centre in Harrier Drive, Merley, just south of Wimborne Minster. Time: 2.00 pm. to 5.00 pm. All are welcome.

John Meadows Tel: 01202 576189, or John Mason, 01425 275894.

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LONDON QL AND QUANTA GROUP

Meetings are held in the School Room, which is the basement of the Borough Welsh Congregational Chapel, 90, Southwark Bridge Road, London SE1. This is almost opposite the junction with Marshalsea Road, at the other end of which, 5 minutes walk away, is the Borough Underground Station. Free parking is easily available in Southwark Bridge Road for road users, Cyclists are welcome.

Members currently each pay a subscription of £30 per year towards the cost of the hire of the hall and a small additional charge is made for tea/coffee - biscuits are then provided free.

Please bring your QL equipment if possible, all types welcome, e.g., PC portable running emulators. The Group has some systems stored at the venue for its use. In addition, there are lots of donated second user equipment, books, magazines, etc, available for purchase.

Time: 2.00 pm. to 6.00 pm., on the second Sunday of the month.

No meetings are held in either December - winter break, or August summer break. Giving 10 meetings a year.

Malcolm Cadman: Tel: 020 8691 5780

email: QL@mcad.demon.co.uk

NEMQLUG - THE NORTH EAST MANCHESTER QL USER GROUP

Meetings are held at 181, Urmston Lane, Stretford, Manchester. M32 9EH (Near Junction 7 of M60 Motorway - Was Junction 7 M63 Motorway). Our informal meetings start at 7 p.m. and finish at 11 pm. All welcome.

Meets on the last Thursday of each month (except December).

John/Sarah Gilpin 0161-865 2872 (thegilpins@btinternet.com)

QUANTA Magazine

SCOTTISH QL USERS GROUP

SQLUG meets at George Gwilt's home every second Sunday in the month. Please contact George Gwilt before coming to get the location.

Email: Gdgglr@gmail.com.

SOLENT SUBGROUP

Meets at Botley Market Hall, all welcome. Park at the back and use side entrance.

1st Saturday of the month from 2.00 pm to 6.00 pm.

Graham Evans, Tel: 023 8040 3350.

SURREY QUANTA SUBGROUP (SQSG)

The group is currently trying other venues in the Leatherhead - Epsom area. If you plan to attend but do not get our emails, please phone or email Ken Bain for the latest location.

Meetings are 8.00 to 10.00 pm. On the last Wednesday of each month except December.

Ken Bain - 01932 - 347 432 (to midnight), kenb@bcs.org.uk

SUSSEX QL USER GROUP

Currently without a meeting place, anyone interested should contact Keith Mitchell or Roy Wood.

Roy Wood, 01273 430501 or Keith Mitchell, 01903 742263.

